

ABSTRACT OF THE INVENTION

The present invention is to provide a chip diode for surface mounting comprising p+ and n+ type semiconductors on two surfaces of a semiconductor wafer respectively; a plurality of parallel, spaced first and second grooves formed on the p+ type semiconductor along X and Y axes and penetrated through the p+ type semiconductor into the n+ type semiconductor; a plurality of first insulation layers in the first and second grooves adapted to separate and insulate the p+ type semiconductor from the n+ type semiconductor at both sides; a plurality of first conductive metal layers coated on a central portion of the semiconductor wafer for soldering; and a plurality of second conductive metal layers coated on an edge of the semiconductor wafer and extended to sides of the n+ type semiconductor on the second surface of the semiconductor wafer to be in communication therewith.